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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-NM-23-AD; Amendment 39-13059; AD 2003-04-11]

RIN 2120-AA64

Airworthiness Directives; Boeing Model 747-200B and -200F Series Airplanes Powered by Pratt & Whitney JT9D-70 Series Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 747-200B and -200F series airplanes powered by Pratt & Whitney JT9D-70 series engines, that requires repetitive detailed inspections of the pylon skin and internal structure of the nacelle struts adjacent to and aft of the precooler exhaust vent for heat damage (discoloration), wrinkling, and cracking; and corrective action, if necessary. The actions specified by this AD are intended to find and fix such damage, which could result in cracking or fracture of the nacelle struts, and consequent reduced structural integrity and possible separation of the strut and engine from the airplane. This action is intended to address the identified unsafe condition.

DATES: Effective April 8, 2003.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 8, 2003.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Tamara L. Anderson, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 917-6421; fax (425) 917-6590.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to Boeing Model 747-200B and -200F series airplanes powered by Pratt & Whitney JT9D-70 series engines was published in the Federal Register on November 27, 2002 (67 FR 70875). That action proposed to require repetitive detailed inspections of the pylon skin and internal structure of the nacelle struts adjacent to and aft of the precooler exhaust vent for heat damage (discoloration), wrinkling, and cracking; and corrective action, if necessary.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were submitted in response to the proposal or the FAA's determination of the cost to the public.

Explanation of Editorial Change

We have changed the service bulletin citation throughout this final rule to exclude the Evaluation Form. The form is intended to be completed by operators and submitted to the manufacturer to provide input on the quality of the service bulletin; however, this AD does not include such a requirement.

Conclusion

After careful review of the available data, the FAA has determined that air safety and the public interest require the adoption of the rule with the change previously described. The FAA has determined that this change will neither increase the economic burden on any operator nor increase the scope of the AD.

Cost Impact

There are approximately 7 airplanes of the affected design in the worldwide fleet. The FAA estimates that 6 airplanes of U.S. registry will be affected by this AD, that it will take approximately 8 work hours per airplane to accomplish the inspection, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$2,880, or \$480 per airplane, per inspection cycle.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2003-04-11 Boeing: Amendment 39-13059. Docket 2002-NM-23-AD.

Applicability: Model 747-200B and -200F series airplanes powered by Pratt & Whitney JT9D-70 series engines, certificated in any category; as listed in Boeing Special Attention Service Bulletin 747-54-2210, dated December 19, 2001.

Note 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To find and fix heat damage of the pylon skin and internal structure of the nacelle struts, which could result in cracking or fracture of the struts, and consequent reduced structural integrity and possible separation of the strut and engine from the airplane; accomplish the following:

Repetitive Inspections/Corrective Action

(a) Within 6 months after the effective date of this AD: Do a detailed inspection of the pylon skin and internal structure of the nacelle struts adjacent to and aft of the precooler exhaust vent for heat discoloration, wrinkling, and cracking, per the Work Instructions of Boeing Special Attention Service Bulletin 747-54-2210, dated December 19, 2001, excluding Evaluation Form. Repeat the inspection at least every 18 months.

Note 2: For the purposes of this AD, a detailed inspection is defined as: "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

(1) If any sign of heat discoloration is found, but there is no wrinkling: Before further flight, do a conductivity test of the discolored area(s) per the service bulletin. If the conductivity test is within the limits specified in Figures 3 and 4, as applicable, of the Work Instructions of the service bulletin, and no cracking is found, before further flight, do a penetrant or high frequency eddy current (HFEC) inspection for cracking.

(2) If any sign of wrinkling is found: Before further flight, do a penetrant or HFEC inspection of the wrinkled area(s) for cracking, per the service bulletin.

(3) If any sign of cracking is found: Before further flight, do the corrective action required by paragraph (b) of this AD.

(b) If, during any inspection or test done by this AD, any wrinkling or cracking is found, or the conductivity limits exceed the limits specified in Figures 3 and 4, as applicable, of the Work Instructions of Boeing Special Attention Service Bulletin 747-54-2210, dated December 19, 2001, excluding Evaluation Form: Before further flight, repair per a method approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA; or per data meeting the type certification basis of the airplane approved by a Boeing Company Designated Engineering Representative who has been authorized by the Manager, Seattle ACO, to make such findings. For a repair method to be approved, the approval must specifically reference this AD.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle ACO. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Seattle ACO.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) Except as provided by paragraph (b) of this AD, the actions shall be done in accordance with Boeing Special Attention Service Bulletin 747-54-2210, dated December 19, 2001, excluding Evaluation Form. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(f) This amendment becomes effective on April 8, 2003.

Issued in Renton, Washington, on February 20, 2003.
Ali Bahrami,
Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.
[FR Doc. 03-4589 Filed 3-3-03; 8:45 am]
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